

REMARKS

Claims 1-16, 30-38, and 48-51 are currently pending in the application. Independent claims 1, 6, 11, 16, 30, 32, and 37 have been amended. No new matter is introduced by any of the claim changes.

35 USC § 102(e) REJECTIONS

Claims 1, 3-7, 9, 13-15, 30, 32-35, 37, 48, and 50-51 are rejected under 35 USC § 102(e) over U.S. Patent Number 6,566,745 to Beyne, et al. ("Beyne"). Applicants assume that claim 16 is rejected over Beyne too, although the action does not indicate the basis upon which claim 16 is rejected. Applicants traverse these rejections, including any rejection of claim 16.

On pages 3, 5 and 6 of the Office action, it is asserted that Beyne discloses an image sensor device comprising "connection terminals 909, the adhering section 65 disposed at least a portion of a region where the cover 61 opposes the pickup device 62 and such that the connection terminals 909 are exposed (fig. 9)." FIG. 9 is a schematic top view of the corner of the package resulting from the processing shown in FIG. 7, as seen through the transparent substrate 91 (col. 5, lines 9-11).

Applicants first submit that each of the amended independent claims 1, 6, 11, 16, 30, 32, and 37 recites, in part, a light-transparent cover arranged opposite to the effective pixel region and having planar dimensions smaller than those of the solid state image pickup device. In the embodiment shown in FIGS. 7 and 9 in Beyne, the transparent substrate 71, 91 is clearly larger in planer dimensions that the semiconductor substrate 72, 92.

Also, each of the amended independent claims 1, 6, 11, 16, 30, 32, and 37 recites, in part, an adhering section for adhering the solid state image pickup device and the light-transparent cover (or plate); and connection terminals disposed on the solid state

image pickup device, the adhering section disposed at least in a portion of a region where the light-transparent cover (or plate) opposes the pickup device and such that the connection terminals are exposed. It is not clear from FIG. 9 whether or not the connection pads 909 are exposed. As described and shown in Beyne (for example, at col. 9, lines 8-11 and 31-33, and FIGS. 7A-7E), the solder ring 79 (corresponding to the sealing ring 93 of FIG. 9) and the pads for the chips-I/O connections 73 (corresponding to the connection pads 909 of FIG. 9) are both encapsulated by underfilling with a polymeric material 75. Although a connection between the connection pads 909 and the solder ball connections 97 is shown in FIG. 9, this connection is not labeled or specifically described in Beyne. Beyne simply does not teach or suggest anything about how or whether the connection pads 909 are exposed, and Beyne is silent about whether the connection pads 909 are disposed on a solid state image pickup device.

35 USC § 103(a) REJECTIONS


Claims 2, 8, 10-12, 31, 36, 38, and 49 are rejected under 35 USC § 103(a) over Beyne in view of Hashimoto (US Pub. 2003/0123779) ("Hashimoto"). Applicants also traverse these rejections.

Beyne is addressed above. Hashimoto also fails at least to teach or suggest exposed connection terminals, and thus any combination of Beyne and Hashimoto would not have rendered obvious any of the claims.

Applicants believe that no fees or extensions are required. However, if for any reason a fee is required, the Office is conditionally authorized to charge Deposit Account No. **04-1105** for the appropriate amount(s). Also, the Office should consider this a conditional petition for the proper extension period needed to have the response entered and considered. In view of the above amendment, applicant believes all pending claims (i.e., claims 1-16, 30-38, and 48-51) are in condition for allowance and request allowance.

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Respectfully submitted,

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